

K15 TYPE -40°C +105°C 5000H

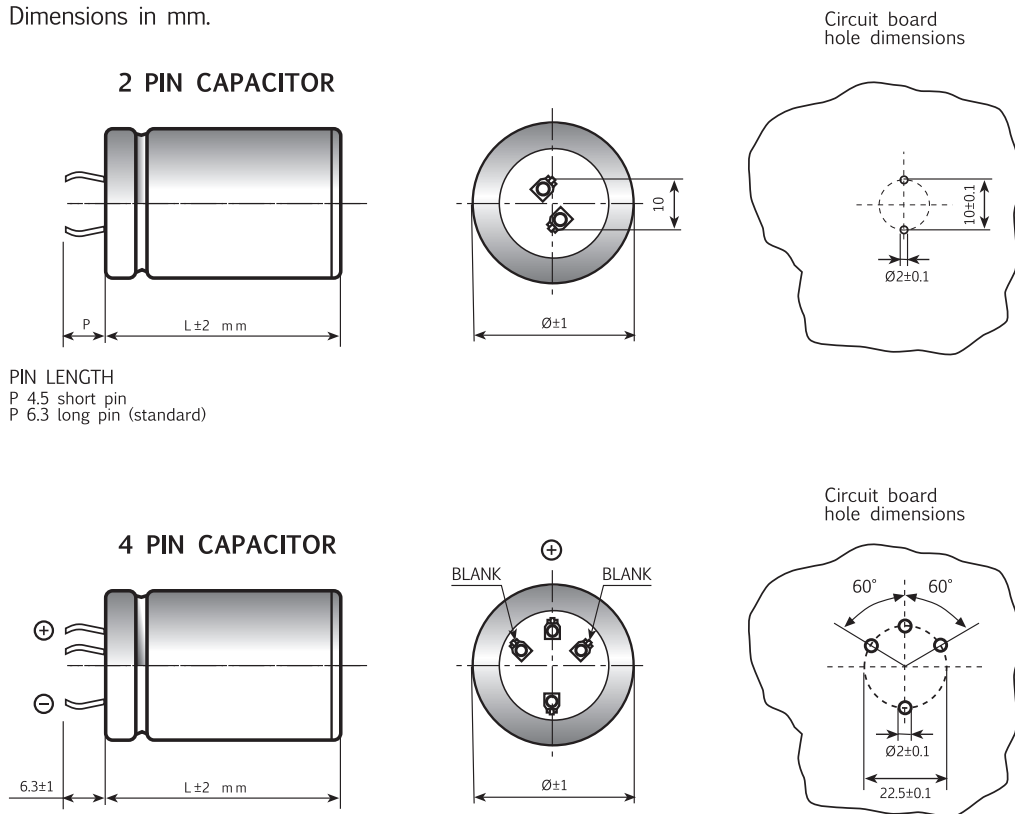
RoHS Compliant
Directive 2002/95/EC

- High temperature 105 °C
- Surge-proof capacitor in aluminium can with insulation sleeve.
- Safety vent at bottom case or aside case.
- Snap in terminals for PCB mounting.
- 2-4 pins available (d=45mm: 4 pins only)
- Large size snap in

APPLICATIONS

Professional switch mode power supplies. Professional power electronics.

Dimensions in mm.



PIN LENGTH
P 4.5 short pin
P 6.3 long pin (standard)

SPECIFICATIONS

Temperature Range	Operating: -40°C +105°C Storage : Preferably below +25°C, not exceeding +40°C	
Rated Voltage Range (V_r)	from 400V to 450V DC	
Surge Voltage (V_p)	V _p = 1.10 V _r	
Rated Capacitance Range	from 820 µF to 2200 µF	
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62]	
Leakage Current (I_L) (mA, 5 min, 20°C)	max I _L = 0.003 C _r V _r + 4 µA	
Ripple current (I_r)	Refer to table at 105°C and 100Hz :	
	FREQUENCY	50Hz 100Hz 500 Hz 1000Hz >10kHz
	MULTIPLIER	0.88 1.0 1.45 1.5 1.55
	AMBIENT TEMP.	35°C 45°C 55°C 65°C 75°C 85°C 95°C 105°C
	MULTIPLIER	3.0 2.8 2.6 2.4 2.2 1.8 1.5 1.0
	Maximum internal temperature	108°C
Insulation Resistance	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.	
Vibration Resistance	Frequency range: 10 Hz to 55 Hz, amplitude 0.75 mm max acceleration 10 G for 3x2 h	
Life test	After 2,000 hours application of rated voltage at 105°C capacitors meet characteristics aside	Cap change ≤ 20% tan δ ≤ 200% Leakage current (I _L) < initial limit Impedance (Z) ≤ 200%
Shelf life	After leaving capacitors under no load for 500 hours at 105°C, when restored at 20°C meet specifications aside	Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I _L) < initial limit
Useful life	> 250,000 h at 40°C > 15,000 h at 85°C > 5,000 h at 105°C	
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 40 fit (40 10 ⁻⁹ /h)	
Self inductance	Approx. 20 nH	
Reference standards	CECC 30.301 - IEC 60384-4 LONG LIFE GRADE	

K15 TYPE STANDARD RATINGS

Cap μF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
1200	40x77	0.10	89	80	3.58	K15400122_PM0F077
1200	45x60	0.10	89	80	3.40	K15400122_PM0N060
1500	40x97	0.10	80	71	4.76	K15400152_PM0F097
1500	45x77	0.10	85	76	4.70	K15400152_PM0N077
1800	45x97	0.10	69	60	5.55	K15400182_PM0N097
2200	45x10	0.10	59	49	6.00	K15400222_PM0N105

RATED
VOLTAGE
VDC

400V

Cap μF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
820	35x77	0.15	215	195	3.00	K15420821_PM0E077
1000	40x60	0.15	195	165	3.60	K15420102_PM0F060
1200	40x77	0.15	183	142	3.70	K15420122_PM0F077
1200	45x60	0.15	180	140	3.60	K15420122_PM0N060
1500	40x97	0.15	140	110	4.60	K15420152_PM0F097
1500	45x77	0.15	150	120	4.43	K15420152_PM0N077
1800	45x97	0.15	118	98	5.55	K15420182_PM0N097
2200	45x105	0.15	112	94	6.03	K15420222_PM0N105

RATED
VOLTAGE
VDC

420V

Cap μF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
820	40x60	0.15	216	195	3.25	K15450821_PM0F060
1000	40x77	0.15	195	165	3.76	K15450102_PM0F077
1000	45x60	0.15	195	165	3.56	K15450102_PM0N060
1200	40x97	0.15	180	140	4.54	K15450122_PM0F097
1200	45x77	0.15	184	145	4.24	K15450122_PM0N077
1500	45x97	0.15	140	110	5.06	K15450152_PM0N097
1800	45x105	0.15	126	106	5.10	K15450182_PM0N105

RATED
VOLTAGE
VDC

450V